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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/629,339      | 08/01/2000  | Hiroshi Kinemura     | 55013(1992)         | 7281             |

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EXAMINER

HUYNH, SON P

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2611

DATE MAILED: 08/15/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/629,339

Applicant(s)

KINEMURA, HIROSHI

Examiner

Son P Huynh

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 August 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koperda (US 5,790,806), and in view of Eastmond et al. (US 5,822,307).

Regarding claim 1, Koperda teaches a cable modem comprising: a cable modem proper that is connected by way of a coaxial cable to a CATV network via cable connector 321; The cable modem is connected to a LAN interface to user's computer via Ethernet connection 316 (see figure 3 and col. 10, line 57+). Thus, the LAN interface reads on the expansion unit. However, Koperda does not specifically disclose an expansion unit having a wireless LAN function and removable couples the cable modem.

Eastmond teaches expansion unit (Ethernet card 912 and first transceiver 904) having a wireless function and removable from communication device (see figure 9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Koperda to use the teaching as taught by Eastmond in order to provide

Art Unit: 2611

an option of transmitting data wirelessly to computer's user thereby expand capability of cable modem.

Regarding claim 2, Eastmond teaches the plug is a plug for a LAN cable and the connector is a connector for a LAN cable (see figure 9 and col. 6, line 55+).

Regarding claim 3, Koperda teaches processor 312 controls timing and controlling circuit 306 when to transmit and when not to transmit (see col. 11, line 35+). Koperda further teaches status information such as transmit error bit rate, receive error bit rate, packets sent, throughput, etc. may be provided over the interface; and the user modem includes a transceiver for generating the proper signal levels for 10BASE T Ethernet (see col. 12, lines 12-60). However, neither Koperda nor Eastmond explicitly disclose that the output level and a data transfer rate are varied according to measurement result. Official Notice is taken that changing the output level and transfer rate according to the measurement result in order to prevent overflow or underflow in data transmission is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Koperda and Eastmond to incorporate the well-known technique in the art in order to minimize bit error rate thereby improve quality of service.

Regarding claim 4, Koperda in view of Eastmond teaches a cable modem as discussed in the rejection of claim 3. Official Notice is taken that adjusting output level according to

Art Unit: 2611

the measurement results to an interface portion of the information processing terminal that communicates with the cable modem on a wireless basis to minimize bit rate error in data transmission system is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Koperda and Eastmond to incorporate the well-known feature in the art in order to reduce error bit rate in data transmission system thereby improve quality of service.

Regarding claim 5, Koperda teaches the cable modem proper comprises tuner (tuners 301, 302), demodulator 305, modulator 304, CPU (processor 312). The tuner selecting information from the CATV network, converting the selected information into an IF and then feeding it to the demodulator 305, and conversely transmitting information fed from the modulator 304 to the CATV network (see figure 3); Koperda further discloses address recognition 303 for screening data to determine which data is destined for this modem or for another modem in the network to insure that only data with address addresses corresponding to the modem are received. The processor 312 controls the timing and controlling circuit 306 to coordinate functions. The modem has direct memory access which enable the received data to be stored directly in the RAM 313. The processor 312 then determines the destination of the received information and whether to alter the format of the information based upon its destination (see col. 11, line 19+). Inherently, the cable modem comprises first medium access controller classifying information fed from the demodulator and information fed through the expansion unit from the information processing terminal into signals to be processed

Art Unit: 2611

inside the cable modem and signal to be transmitted to the information processing terminal and to the CATV network; and a second medium access controller converting and exchanging data between the cable modem proper and the expansion unit (send received information to the LAN).

Regarding claim 6, Koperda teaches the CPU (processor 312) controls direction and timing in and with which to output information (see col. 11, lines 35-67).

Regarding claim 7, Koperda teaches processor 312 controls timing and controlling circuit 306 when to transmit and when not to transmit (see col. 11, line 35+). Koperda further teaches status information such as transmit error bit rate, receive error bit rate, packets sent, throughput, etc. may be provided over the interface; and the user modem includes a transceiver for generating the proper signal levels for 10BASE T Ethernet (see col. 12, lines 12-60). Inherently, the CPU measures a bit error rate and controls an output level of the expansion unit according to the measured bit error rate.

Regarding claim 8, Koperda teaches processor 312 controls timing and controlling circuit 306 when to transmit and when not to transmit (see col. 11, line 35+). Koperda further teaches status information such as transmit error bit rate, receive error bit rate, packets sent, throughput, etc. may be provided over the interface; and the user modem includes a transceiver for generating the proper signal levels for 10BASE T Ethernet

Art Unit: 2611

(see col. 12, lines 12-60). Inherently, the CPU measures a bit error rate and controls a data transfer rate according to the measured bit error rate.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Laubach et al.** (US 6,075,972) teaches CATV network and cable modem system having a wireless return path.

**Widmer et al.** (US 6,169,569) teaches cable modem tuner.

**Borg et al.** (US 5,669,066) teaches dynamic control of transmitting power at a transmitter and attenuation at a receiver.

**Jung** (US 6,097,732) teaches apparatus and method for controlling transmission parameters of selected home network stations transmitting on a telephone medium.

**Scott** (US 5,602,869) teaches adaptive transmit levels for modems operating over cellular.


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P Huynh whose telephone number is 703-305-1889. The examiner can normally be reached on 8:00-5:30.

Art Unit: 2611

5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

6. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is 703-306-0377.

Son P. Huynh  
August 11, 2003

  
ANDREW FAILE  
SUPERVISORY PATENT EXAMINER  
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